

## ***Executive Summary***

Since the AIDS (Acquired Immunodeficiency Syndrome) epidemic was first identified and surveillance implemented in the early 1980s, 16,642 MA residents have been diagnosed with AIDS, over 60% have died, and an additional 5,547 have been reported to be living with HIV (Human Immunodeficiency Virus), the virus that causes AIDS. Currently there are an estimated 20,000 individuals living with HIV infection or AIDS in the Commonwealth, with as many as one-third who do not yet know their status. Improved treatment options have extended the average timeframe between the point that an individual becomes infected with HIV and the development of AIDS, and also have extended the overall survival of people with HIV/AIDS. Consequently, the need for public health care and preventive measures has also greatly increased. Newly established HIV reporting requirements are beginning to reveal incident disease information: between 500-700 new HIV diagnoses were reported in each of the past two years in Massachusetts. These numbers are an undercount because many people who are HIV positive have not yet been tested, have been tested and are not in care, or are in care but have not been reported.

Through this expanded HIV/AIDS epidemiologic profile, the MDPH hopes to improve the ability of local and statewide partners to plan and deliver HIV prevention, diagnostic, and care services that will assist in the reduction of new infection and improve the well being of those currently living with the virus.

### ***Trends in AIDS Diagnoses***

From 1993 to 1997, there was a decline in the number of AIDS cases diagnosed in Massachusetts each year from a peak in 1993 of 1,753 to 850-900 where it has remained through 1999. Since 1993, the demographic distribution of the people being diagnosed has also been shifting. In terms of gender, there was a decline in the number of AIDS cases diagnosed for both males and females, but the proportion of cases among females steadily increased. For race/ethnicity, there was an increase in the percentage of cases among Blacks, Hispanics and Asian/Pacific Islanders. Regarding exposure mode, prior to 1992, male to male sex (MSM) accounted for the majority of exposures, but in 1992, injection drug use (IDU) surpassed MSM and has continued to be the predominant reported risk.

### ***Diagnoses of HIV Infection***

On January 1, 1999, HIV became a reportable condition in Massachusetts enhancing understanding of the course of the epidemic. Prevalent HIV diagnoses through 1998 were required to be reported by the end of 2000; new as well as previously diagnosed HIV infections continue to be reported. HIV surveillance reflects the incidence of positive tests among people who are in care and not new infections; like AIDS case reporting, it

is not a direct measure of incidence. Moreover, as a new surveillance system, it will continue to require more time to mature. These considerations must be kept in mind when looking at trends in HIV surveillance data. Nevertheless, HIV reporting has provided important new understandings of the epidemic among those who have not yet progressed to AIDS. Women make up over 30% of those living with HIV infection statewide, and account for as many as 57% of the HIV diagnoses in certain cities. People of color constitute over 50% of those living with HIV infection. In two years of incident HIV surveillance, between 500-700 new HIV diagnoses have been reported each year. Across race/ethnicity, there was a decrease in the percentage of HIV infections among Whites and an increase among Blacks in the last two years. Across exposure mode, there was a decrease in the percentage of cases among IDUs.

### ***People Living with HIV Infection/AIDS***

Currently, the majority of people living with HIV infection/AIDS are age 35 years and older and the majority are males. For males living with HIV infection/AIDS, sexual exposure through MSM accounts for the largest percentage of exposures; for women living with HIV infection/AIDS IDU accounts for the largest percentage of exposures followed by heterosexual sex.

The majority of males living with HIV infection/AIDS are White while women living with HIV infection/AIDS are predominantly Black or Hispanic. Thirteen percent of all people living with HIV infection/AIDS in Massachusetts are non-US born, primarily from the Caribbean (45%) and Sub-Saharan Africa (21%). Overall, the impact of HIV/AIDS on people of color is markedly disproportionate to their relative population base in Massachusetts. The rate of HIV/AIDS for Blacks is 1,168 cases per 100,000; that is, for every 100,000 Blacks in MA, over 1,000 are living with HIV infection or AIDS. Among Hispanics, the rate is 881 per 100,000 Hispanics. This is compared to 143/100,000 for American Indians and Alaskan Natives and 115/100,000 for Whites and 61/100,000 for Asians and Pacific Islanders.

The racial/ethnic distribution of people living with HIV infection/AIDS also varies by Health Service Region (HSR). While over half of the people living with HIV infection/AIDS in the Metrowest, Northeast and Southeast regions are White, nearly half of the people living with HIV infection/AIDS in the Western HSR are Hispanic and a large proportion of people living with HIV infection/AIDS in the Boston HSR are Black. Exposure mode also varies across the state. While MSM predominates in the Boston and Metrowest HSRs, IDU predominates in the Western, Central, Southeast and Northeast regions of the state.

### ***Trends in HIV/AIDS Mortality***

Trends in mortality from HIV/AIDS reflect shifts in HIV infection and AIDS diagnoses as well as highlight differential survival across groups. Since 1990, females have

accounted for an increasing proportion of deaths. Across race/ethnicity, there has been a decrease over time in the percentage of deaths that are among Whites and an increase among Blacks and Hispanics. Regarding exposure mode, there has been a sustained increase in the percentage of deaths that are among IDUs and a decrease in the percentage of deaths among MSMs.

### ***Perinatal HIV Transmission***

Improved prenatal HIV counseling and testing and expanded access to effective treatments have greatly increased the likelihood that women with HIV will deliver healthy babies. Perinatal transmission of HIV, i.e. transmission of HIV from an infected mother to her newborn, has diminished considerably in the last decade. According to data from the Pediatric Spectrum of Disease (PSD) project, from 1990 to 1998 the percentage of children infected with HIV decreased from 33% to 8% (among children known to be perinatally exposed). The percentage of HIV positive mothers who knew their HIV status before giving birth has increased from 71% in 1990 to 96% in 2000. Of women in Massachusetts who knew their HIV positive status before giving birth in year 2000, 95% received some antiretroviral therapy during pregnancy and/or labor and delivery. Of all HIV positive women who gave birth in MA in 2000, 53% were U.S.-born, 13% were from a U.S. Dependency and 23% were non-U.S. born (from Africa, Haiti and Brazil). Continued improvement in HIV counseling, testing and treatment for pregnant women is increasingly important as the number of women of reproductive age living with HIV rises.

